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Notice of Allowability	Application No. 10/823,874	Applicant(s) LIEN ET AL.	
	Examiner Adolfo Nino	Art Unit 2831	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *Application filed 4/14/04*.

2. ☒ The allowed claim(s) is/are *1-29*.

3. ☒ The drawings filed on *14 April 2004* are accepted by the Examiner.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 4/14/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Allowable Subject Matter

Claims 1-29 are allowed.

The following is an examiner's statement of reasons for allowance:

With respect to claims 1-19, the cited prior art does not disclose, teach or suggest, alone or in combination, the mounting configuration of at least one shielding layer positioned between an active circuit layer formed proximate to a semiconductor substrate and a component layer, wherein the shielding layer includes at least a first opening formed therein.

With respect to claims 20-21, the cited prior art does not disclose, teach or suggest, alone or in combination, the mounting configuration of a first conductive shielding layer, with at least one opening formed therein, positioned between a first and second structural layers, and a second conductive shielding layer, with a second opening formed therein, positioned between the first and the second structural layers and proximate to the first conductive shielding layer.

With respect to claims 22-26, the cited prior art does not disclose, teach or suggest, alone or in combination, a method for providing shielding in an integrated circuit formed on a substrate, comprising: forming a first shielding layer above a first structural layer formed on the substrate, patterning the first shielding layer to form at least one opening in the first shielding layer, and forming a second structural layer above the first shielding layer.

With respect to claims 27-29, the cited prior art does not disclose, teach or suggest, alone or in combination, the mounting configuration of a first metal shielding

layer positioned between a routing layer formed proximate a substrate and a RF layer, wherein the first metal shielding layer has a first opening formed therein.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Boone et al. (US 6,836,022 B2) disclose a flip-chip component package. Kovacs et al. (US 6,822,880 B2) disclose a multiplayer thin film hydrogen getter and internal signal EMI shield. Soeda (US 6,822,279 B2) discloses a semiconductor device with a semiconductor substrate and a shielding layer. Caldwell (US 6,765,806 B1) discloses a composition with EMC shielding characteristics. Barnes et al. (US 6,747,340 B2) disclose a multi-level shielding multi-conductor interconnect bus for MEMS. Strobel et al. (US 6,720,493 B1) disclose a radiation shielding of integrated circuits. Kajiwara et al. (US 6,667,480 B2) disclose a radiation image pickup device and system. Haematsu (US 6,664,624 B2) discloses a semiconductor device having a semiconductor substrate.

Dean A. Reichard 1/10/05

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